FIG. 1

<u>1</u>

CONSTITUTION OF CAMERA APPARATUS

# FIG.2A

FROM A/D → DEFECT CORRECTING CIRCUIT [II] → Digital CLP [I2] → WB [I3] → GAMMA CORRECTING CIRCUIT [I4]

8

HORIZONTAL-DIRECTION INTERPOLATOR 15a

EDGE PROCESSOR 15c

VERTICAL-DIRECTION INTERPOLATOR 15b

15

① ②

HORIZONTAL-DIRECTION CORRELATION DETECTOR

VERTICAL-DIRECTION CORRELATION DETECTOR

16

CORRELATION VALUE NOISE CANCELER

CORRELATION VALUE NOISE CANCELER

17

18

19a

19b

19

③

CONSTITUTION OF SIGNAL PROCESSING CIRCUIT

F I G. 2 B

CORRELATION
VALUE BIAS
CORRECTING
CIRCUIT

20

CORRELATION
EMPHASIS/
DEEMPHASIS
CIRCUIT

21

22a
1 − a

a

22c
⊗

22
22d 22
⊕

22b
⊗

23
⊕

24
Y/C
CONVERTER

25

BG — 25a

RG — 25b

26

TO RECORDING
MEDIUM OUTPUT
MEANS

F I G. 2

F I G. 2A	F I G. 2B
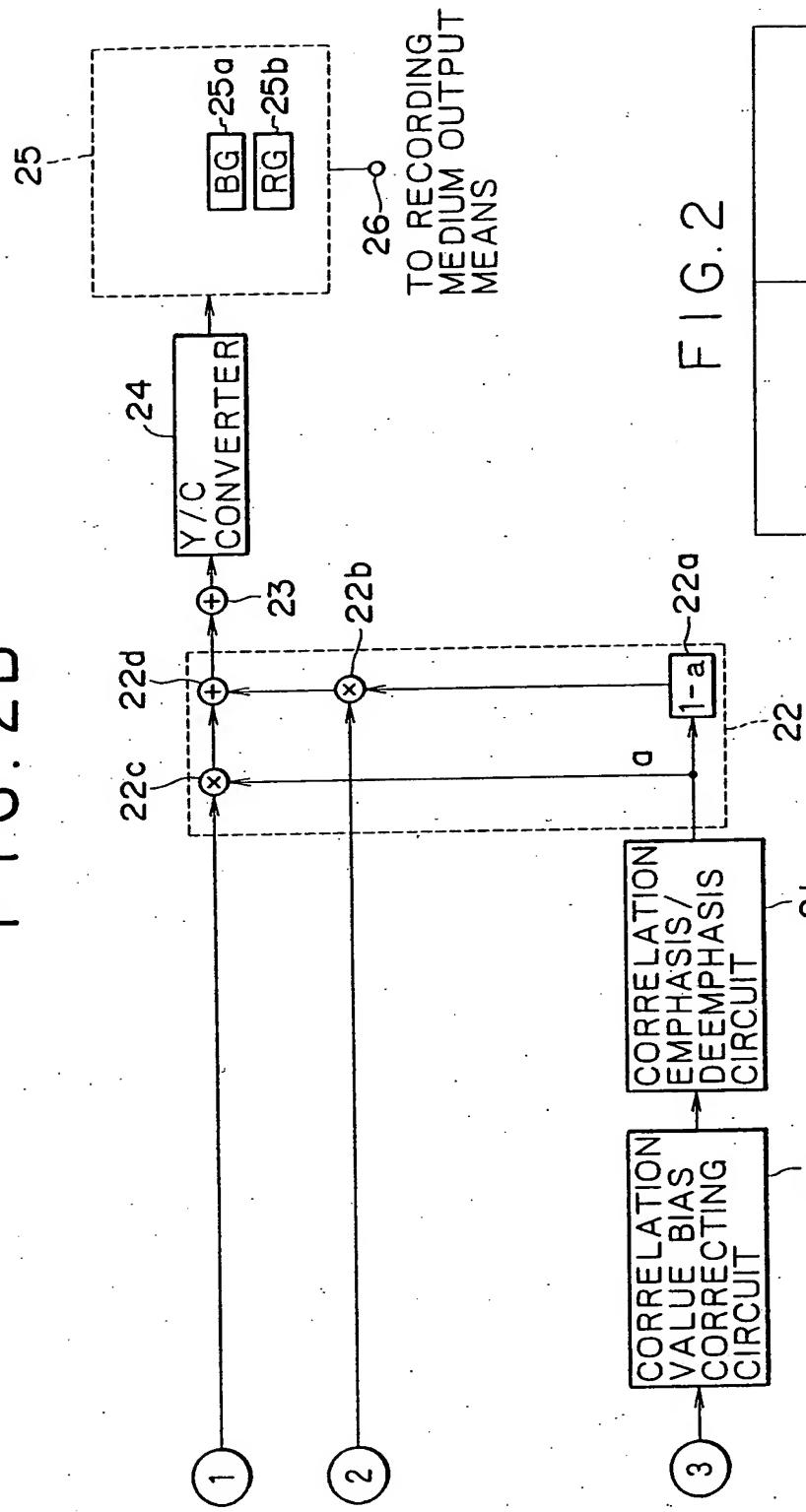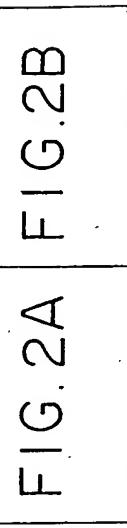
FIG.3

0h	G 00	R 01	G 02	R 03	G 04
1h	B 10	G 11	B 12	G 13	B 14
2h	G 20	R 21	G 22	R 23	G 24
3h	B 30	G 31	B 32	G 33	B 34
4h	G 40	R 41	G 42	R 43	G 44

ARRANGEMENT OF PIXEL DATA

F I G. 4
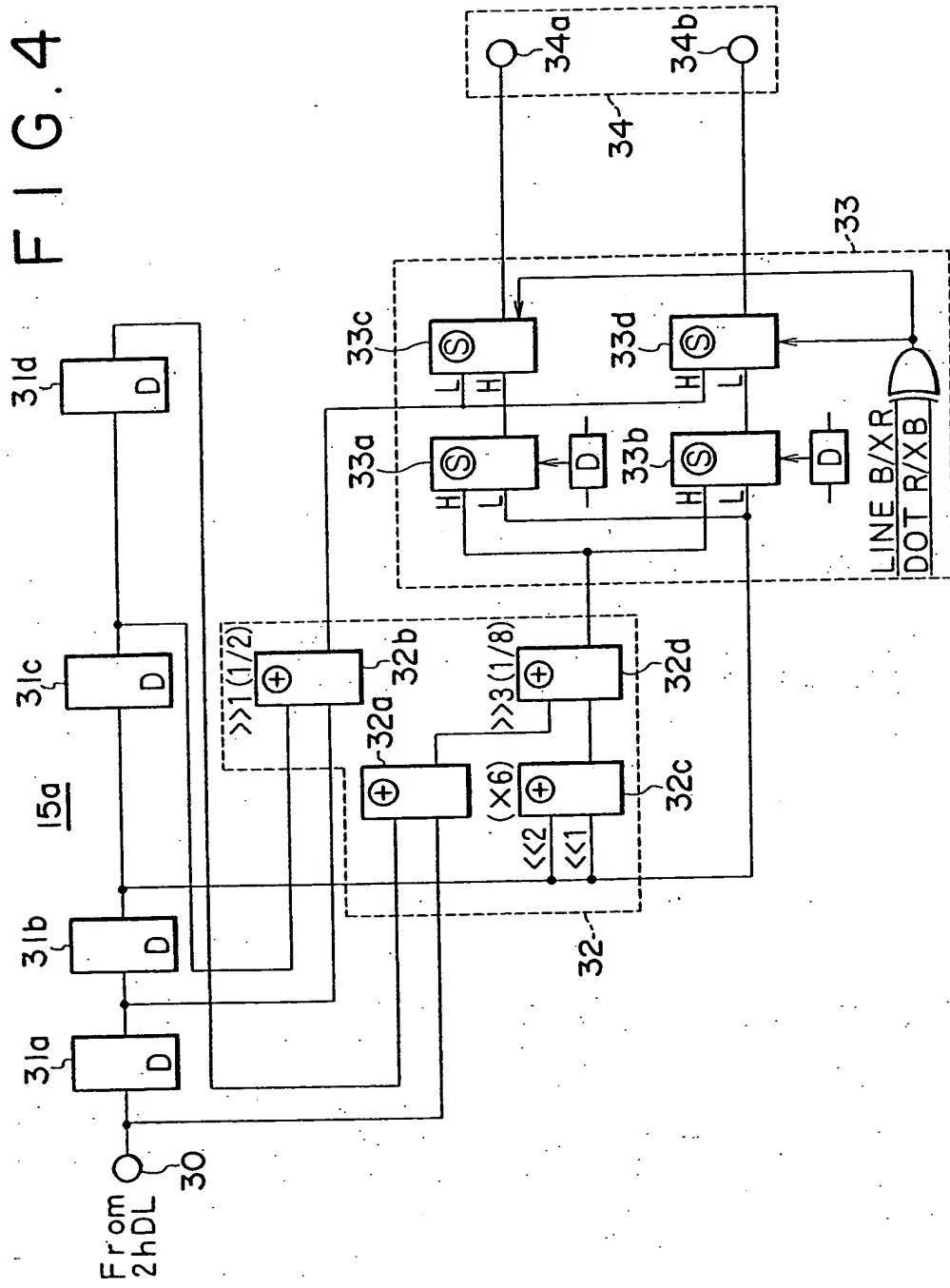
CONSTITUTION OF HORIZONTAL-DIRECTION INTERPOLATOR

FIG.5

G 00		G 02		G 04
	G 11		G 13	
G 20		G 22		G 24
	G 31		G 33	
G 40		G 42		G 44

ARRANGEMENT OF PIXEL DATA

FIG.6
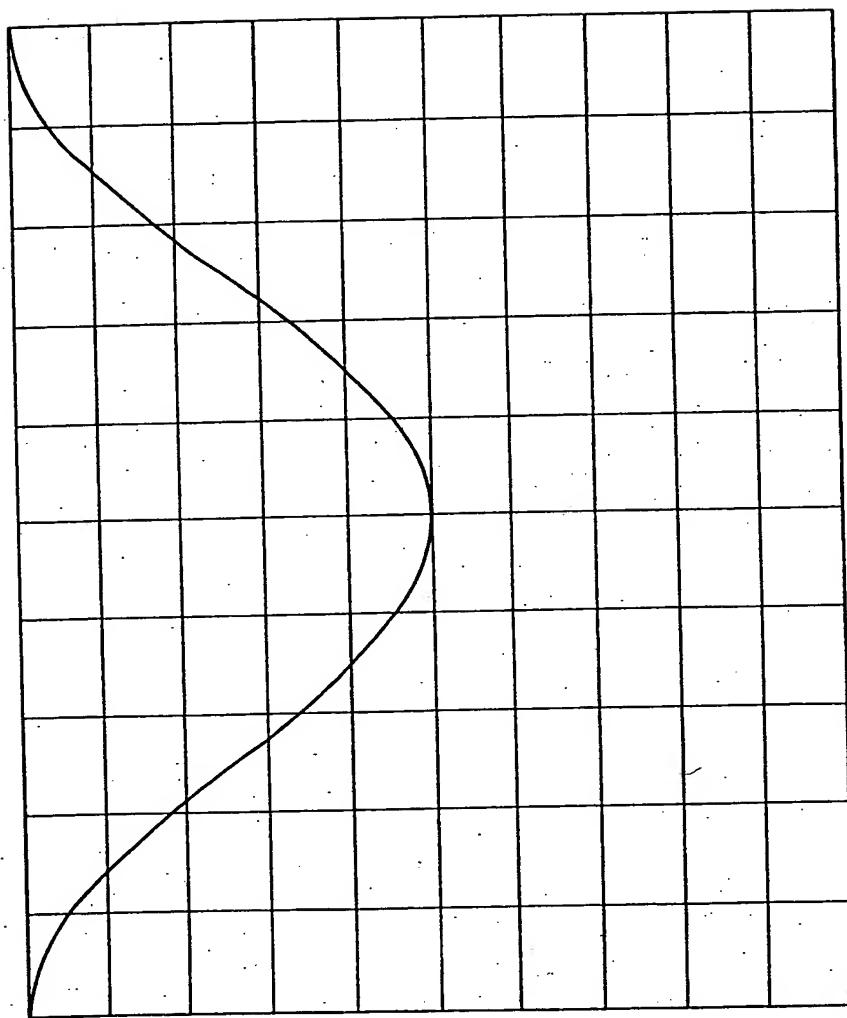
FREQUENCY CHARACTERISTIC OF LPF

FIG. 7
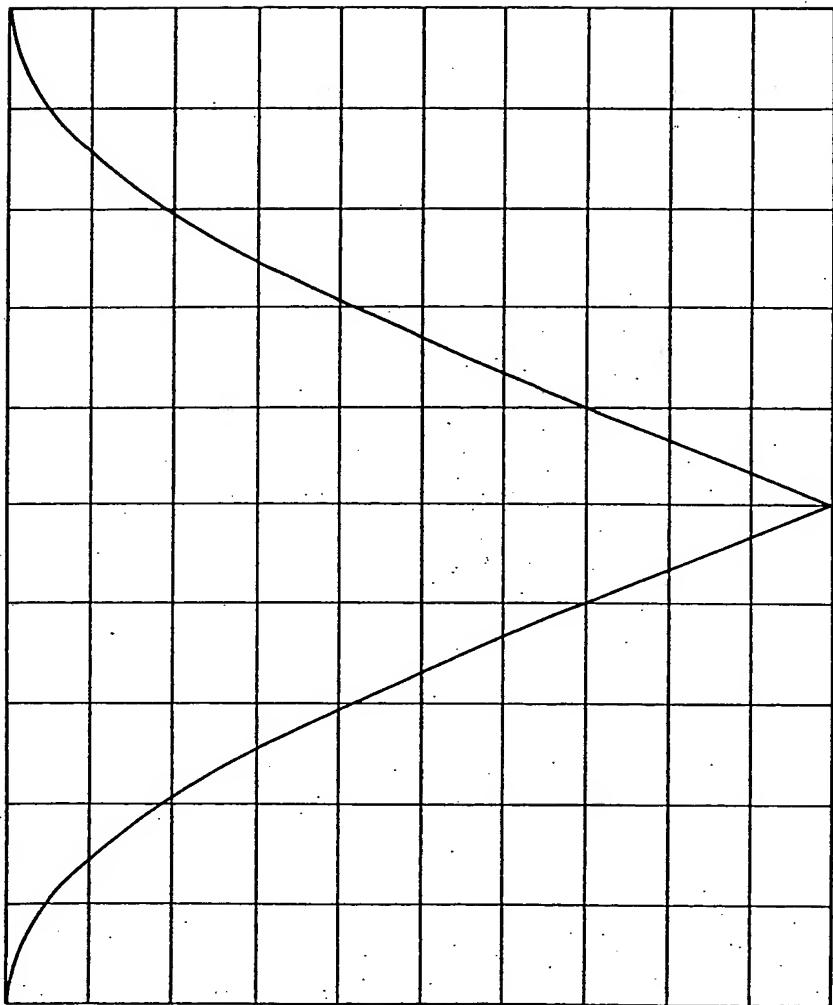
FREQUENCY CHARACTERISTIC OF LPF

FIG.8

G 00'	G 01'	G 02'	G 03'	G 04'
G 10'	G 11'	G 12'	G 13'	G 14'
G 20'	G 21'	G 22'	G 23'	G 24'
G 30'	G 31'	G 32'	G 33'	G 34'
G 40'	G 41'	G 42'	G 43'	G 44'

INTERPOLATED PIXEL DATA

FIG. 9
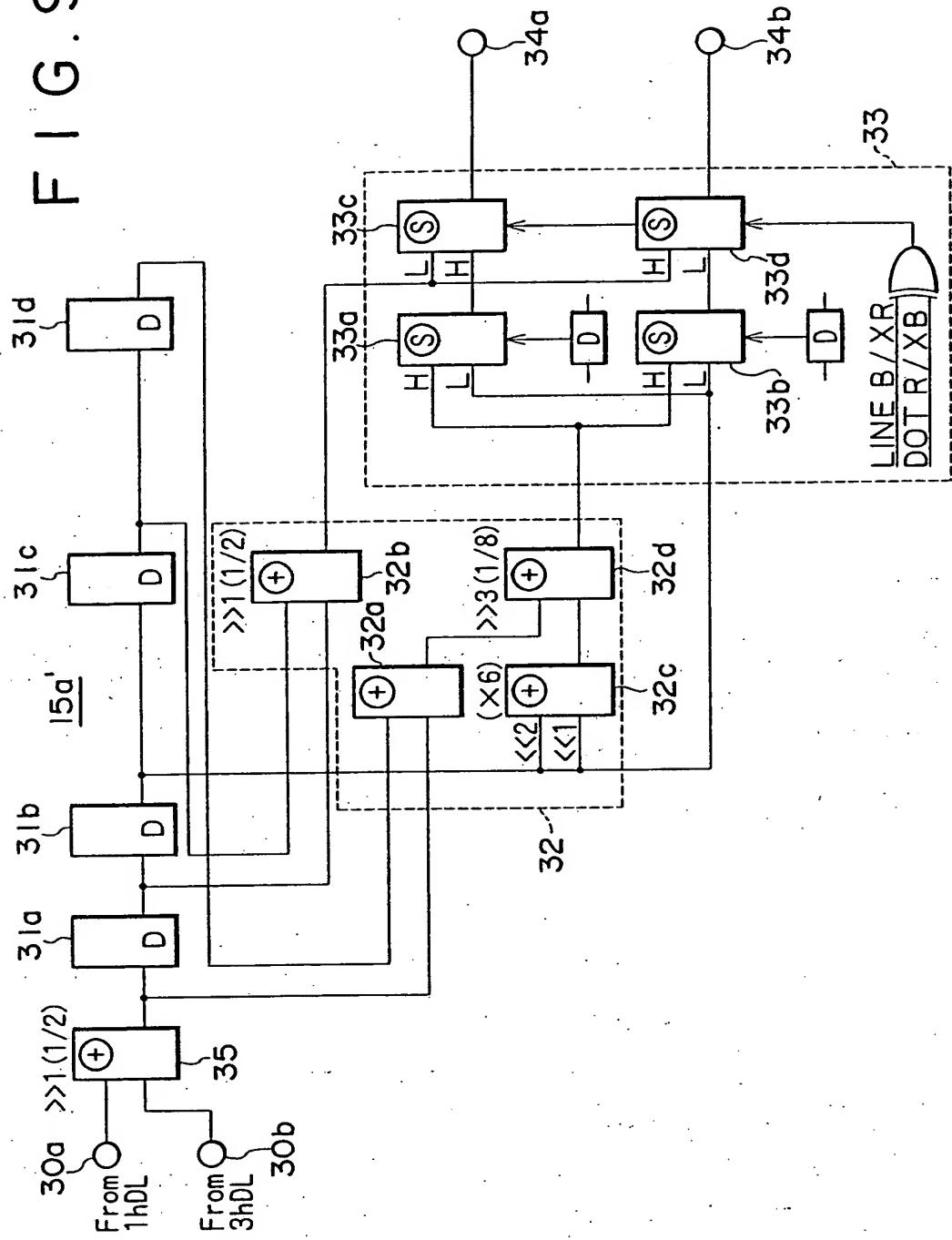
CONSTITUION OF HORIZONTAL-DIRECTION INTERPOLATOR

F I G. 10

0 h					
1 h	B 10		B 12		B 14
2 h					
3 h	B 30		B 32		B 34
4 h					

ARRANGEMENT OF PIXEL DATA

F I G. 11

B 10		B 12		B 14
B' 20		B' 22		B' 24
B 30		B 32		B 34

ARRANGEMENT OF PIXEL DATA

F I G. 12

B 00'	B 01'	B 02'	B 03'	B 04'
B 10'	B 11'	B 12'	B 13'	B 14'
B 20'	B 21'	B 22'	B 23'	B 24'
B 30'	B 31'	B 32'	B 33'	B 34'

INTERPOLATED PIXEL DATA

F I G . 1 3

CONSTITUTION OF VERTICAL-DIRECTION INTERPOLATOR

FIG.14

15c

G Sort Logic(2nd & 3rd & Data Select)

・CMP1 & CMP2 & CMP3
(L, H, H) or (H, L, L) or (H, H, L) →S2:"00" (2nd)
(L, L, H) or (L, H, L) or (H, L, L) →S3:"00" (3rd)
else Not Fixed

・CMP1 & CMP4 & CMP5
(L, L, H) or (L, H, L) or (H, H, H) →S2:"01" (2nd)
(L, L, L) or (H, L, H) or (H, H, L) →S3:"01" (3rd)
else Not Fixed

・CMP2 & CMP4 & CMP6
(L, L, L) or (L, H, H) or (H, L, H) →S2:"10" (2nd)
(L, H, L) or (H, L, L) or (H, H, H) →S3:"10" (3rd)
else Not Fixed

・CMP3 & CMP5 & CMP6
(L, L, H) or (L, H, L) or (H, L, L) →S2:"11" (2nd)
(L, H, H) or (H, L, H) or (H, H, L) →S3:"11" (3rd)
else Not Fixed

※ SELECT SW CONTRADICTION
DOSE NOT OCCUR.
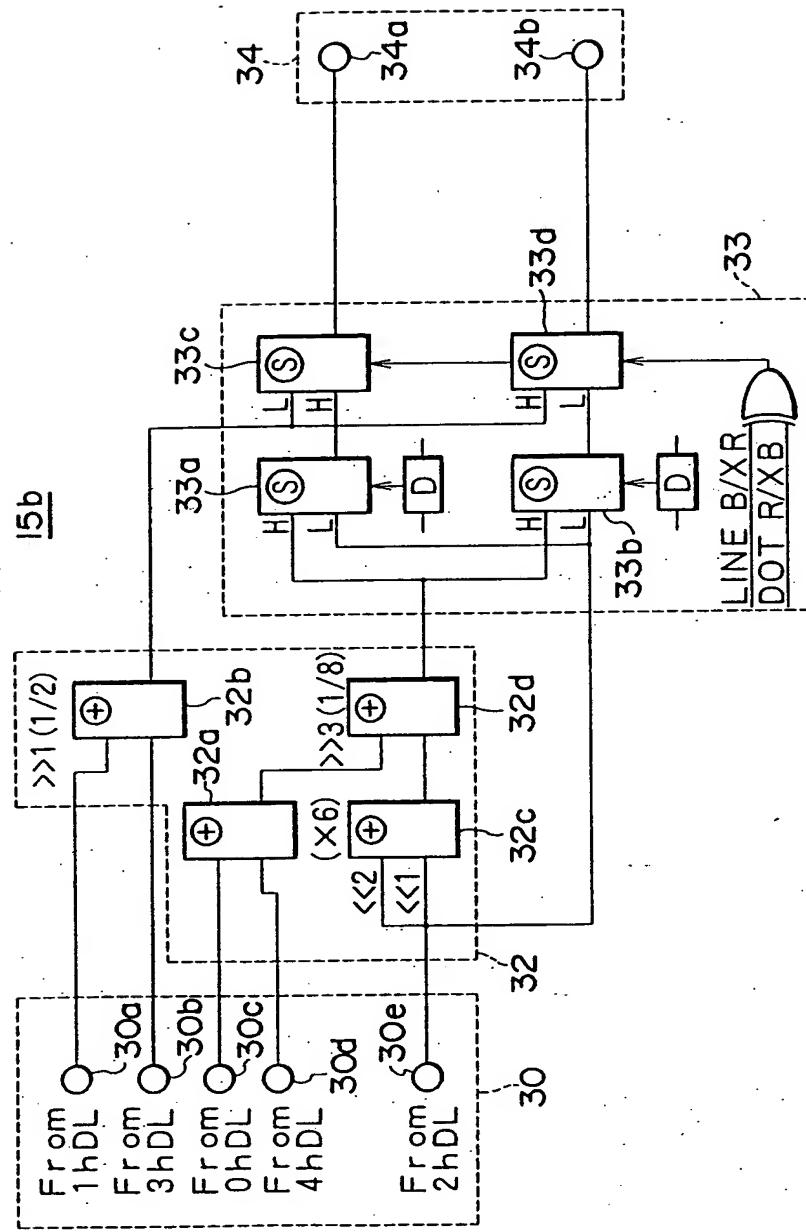
CONSTITUTION OF
EDGE PROCESSOR

FIG. 15
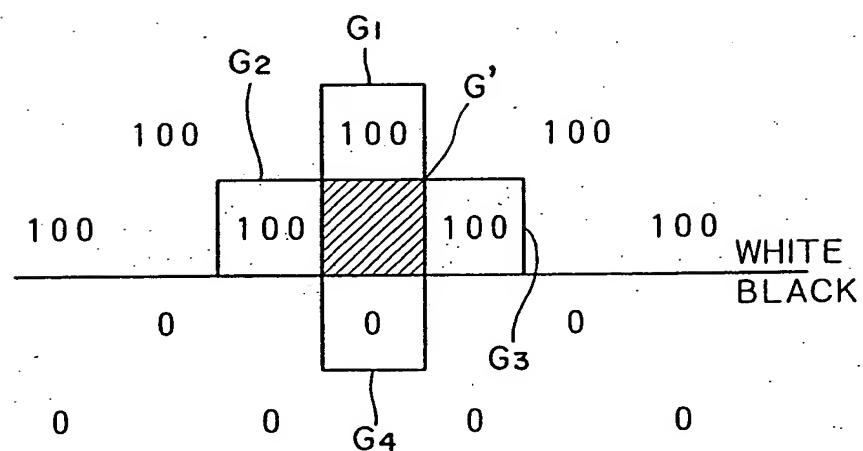
EXAMPLE OF EDGE PROCESSING

FIG. 16
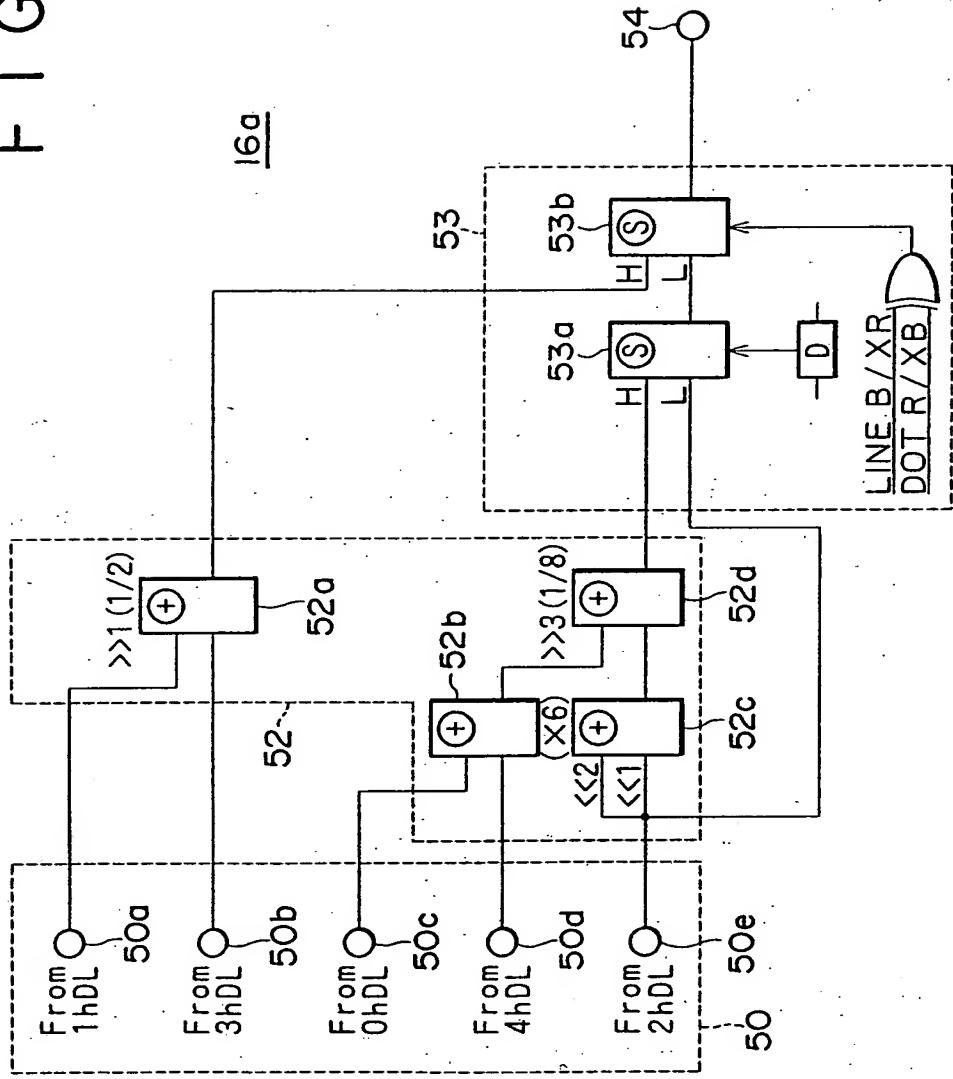
CONSTITUTION OF HORIZONTAL-DIRECTION CORRELATION DETECTOR

FIG.17
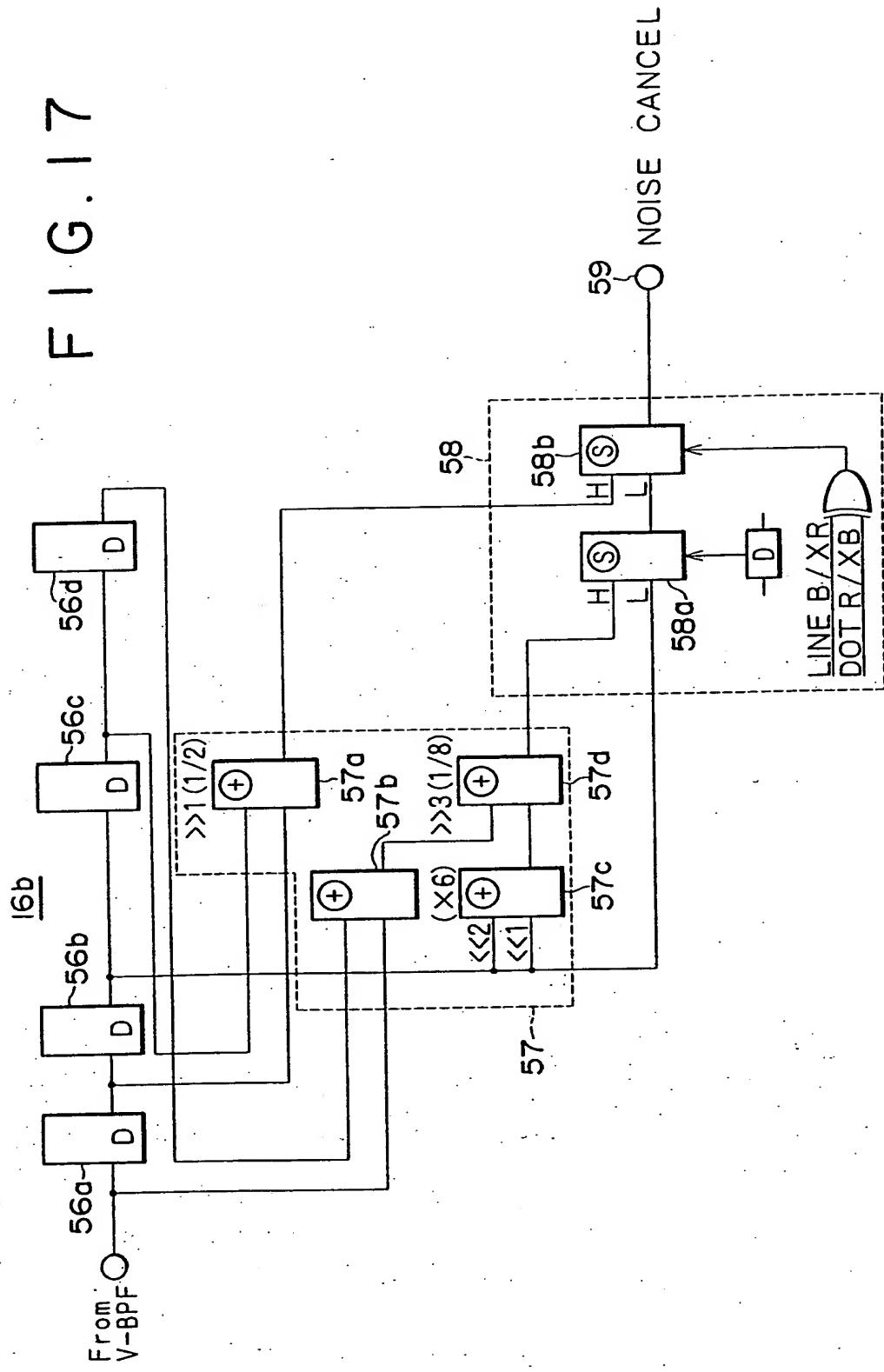

CONSTITUTION OF VERTICAL-DIRECTION CORRELATION DETECTOR

F I G. 18
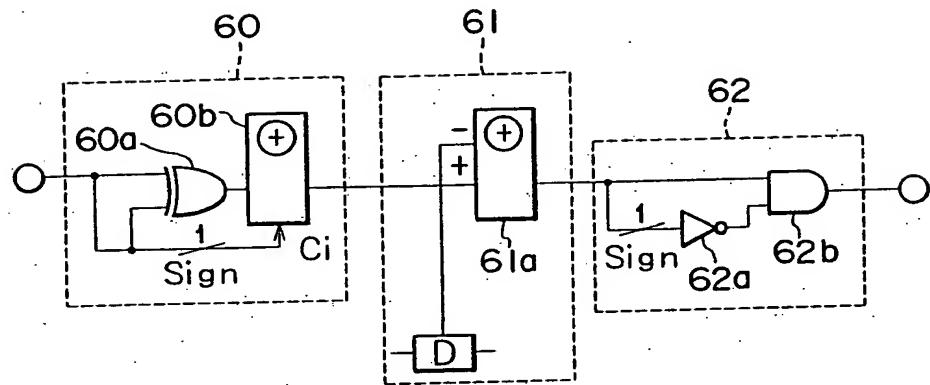
CONSTITUTION OF NOISE CANCELER
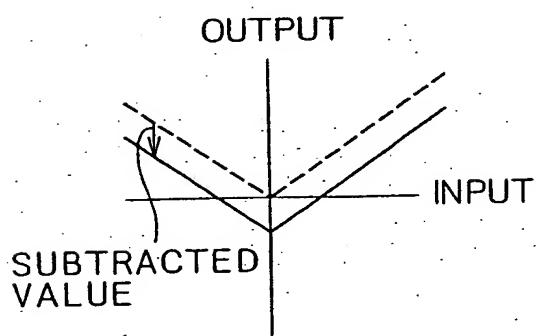
# F I G. 19A   F I G. 19B
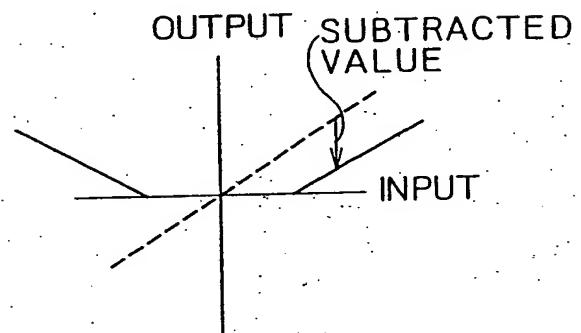
PROCESSING OF CORRELATION VALUE

FIG. 20

18a, 18b
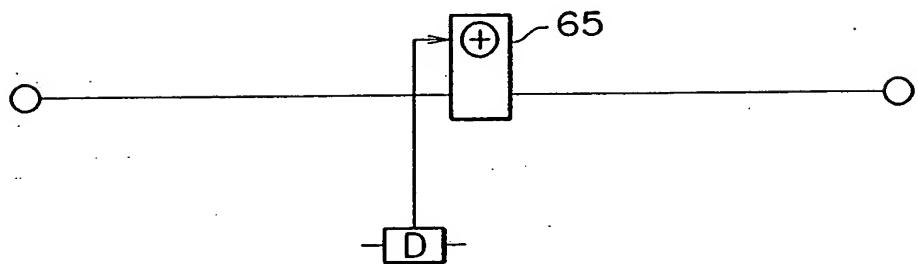
CONSTITUTION OF OFFSET CIRCUIT

# FIG. 21

INPUT / OUTPUT CHARACTERISTIC

F I G . 2 2

BLACK   BLACK   BLACK
    WHITE   WHITE
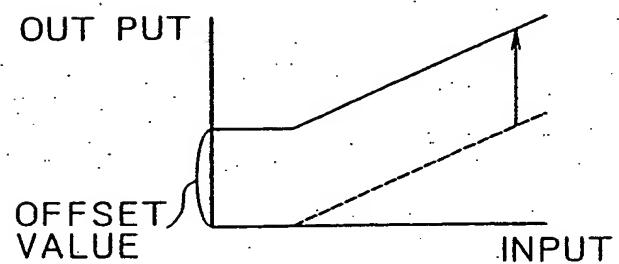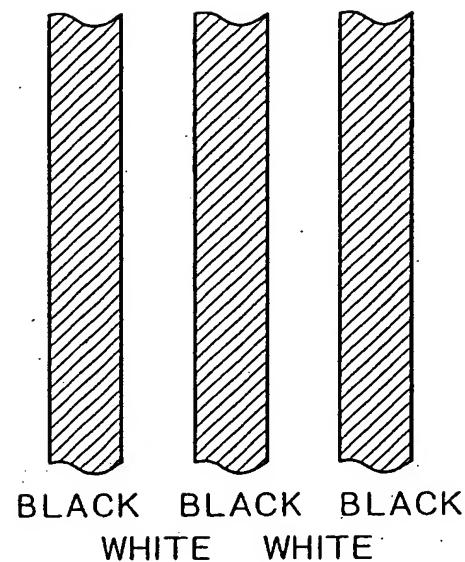
EXAMPLE OF IMAGE DATA

F I G . 2 3

CADJST
□D□ −1~1

20

20a
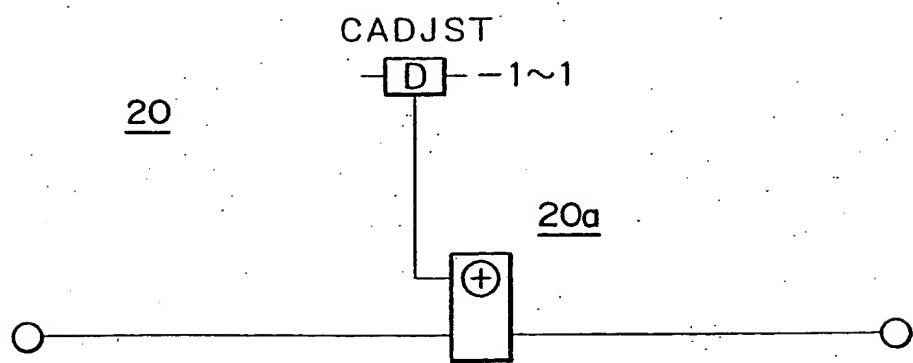
CONSTITUTION OF BIAS CORRECTING CIRCUIT

F I G . 2 4

OUTPUT

1

CORRECTING
VALUE α

INPUT

INPUT / OUTPUT CHARACTERISTIC

F I G . 2 5

<u>21</u>

0. 5

0. 5

21a   21b   21c   0~1

0~1

21d

D
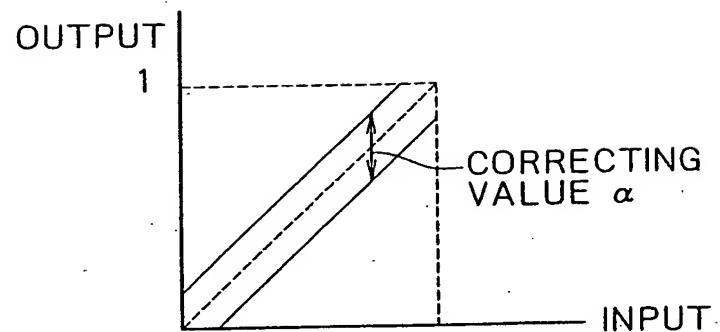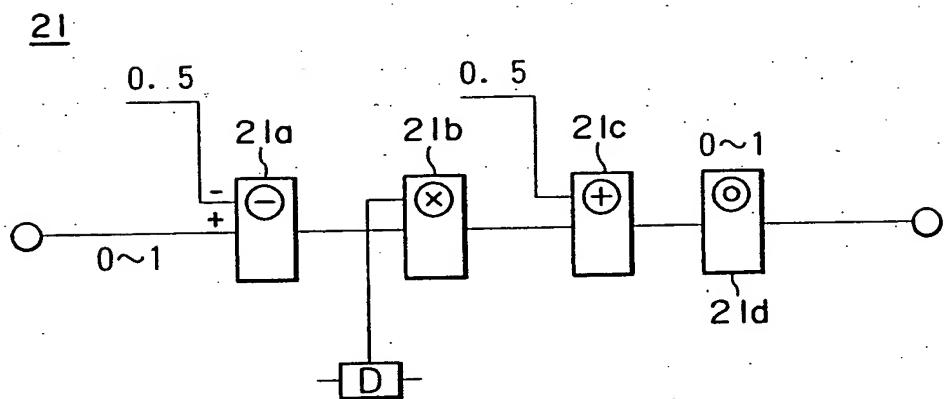
CONSTITUTION OF EMPHASIS / DEEMPHASIS CIRCUIT

F I G . 2 6

OUTPUT

0.5

INPUT

0.5
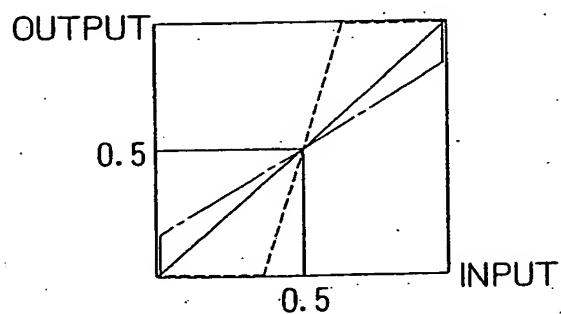
INPUT / OUTPUT CHARACTERISTIC

F I G. 27
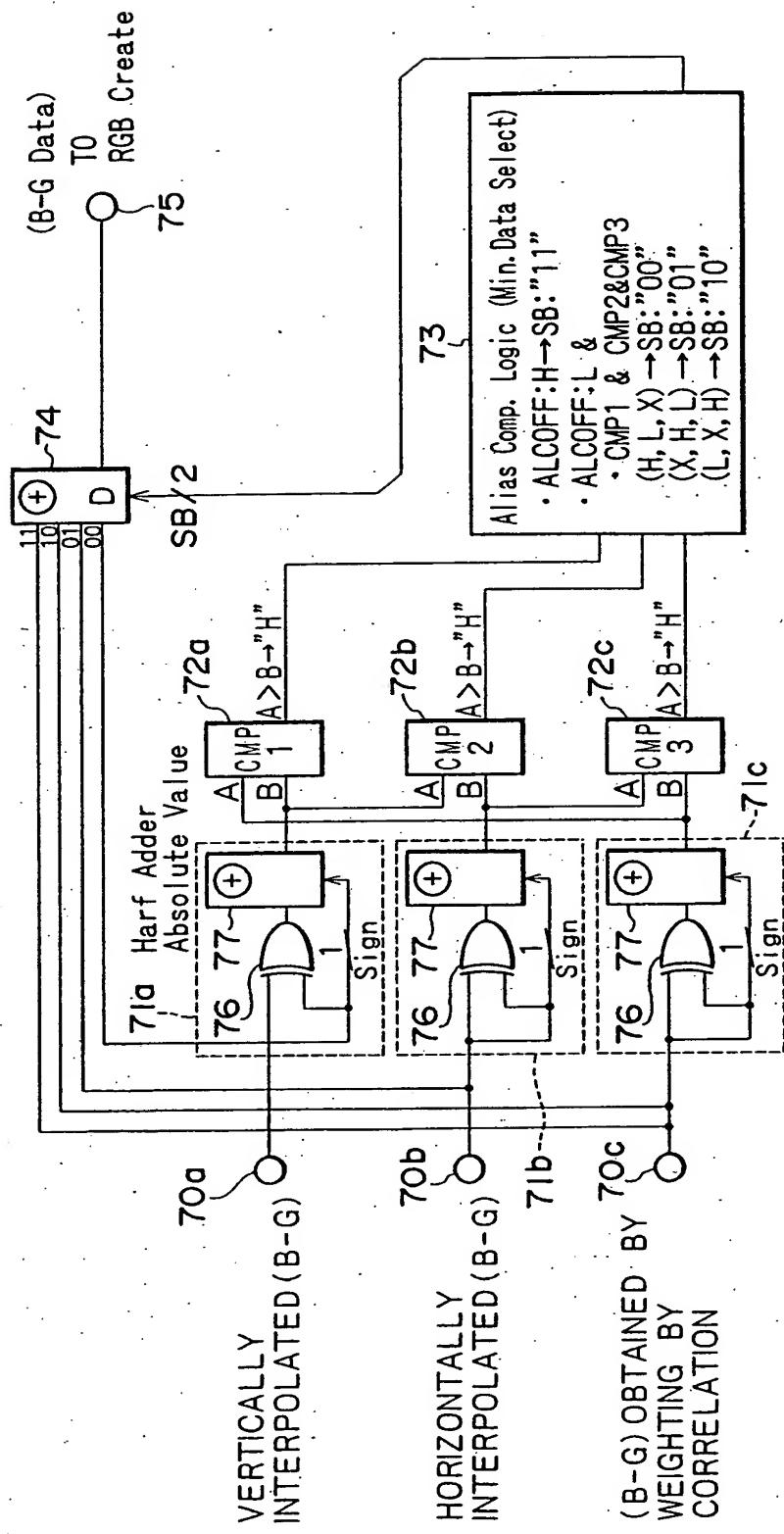
CONSTITUTION OF COLOR-DIFFERENCE SIGNAL SUPPRESSER

FIG. 28A FIG. 28B
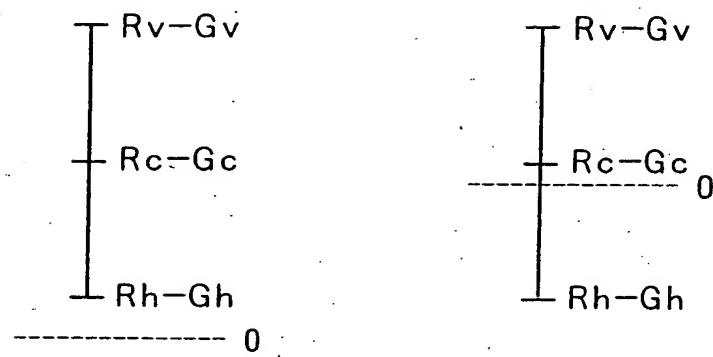
EXAMPLE OF SELECTING MINIMUM
INTERPOLATED PIXEL DATA

FIG. 29A FIG. 29B

ARRANGEMENT OF PIXEL DATA